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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,018	06/27/2003	Henry A. Blauvelt	XPNT33NP	8349

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EXAMINER

KIM, ELLEN E

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/609,018

Applicant(s)

BLAUVELT ET AL.

Examiner

Ellen Kim

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 17-27 is/are rejected.
- 7) ☒ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/17/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2874

DETAILED ACTION

Applicant's election without traverse of Specie I in the reply filed on 3/17/05 is acknowledged. Examiner, however, withdraws the restriction requirement made in previous Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 27 recites the limitation "claim 0" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14, and 17-26 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Bowers et al [USPAT 6,385,376].

Bowers et al disclose an optical apparatus comprising:

A first planar optical waveguide [fig. 12] comprising a first waveguide core [106] within a first cladding, an upper surface of the first cladding over the first core being substantially flat [near 110] along at least a portion of the length; and

A second planar optical waveguide comprising a second waveguide core [104] within a second cladding, an upper surface of the second cladding over the second core being substantially flat [near 110] along at least a portion of the length;

The first and second planar optical waveguides assembled together with the portions of their corresponding substantially flat waveguide upper cladding surfaces positioned facing one another.

With respect to claim 3, the air portions are provided so that the cladding surfaces are spaced-apart from one another.

With respect to claim 4, the oval shape waveguide core portion has a lateral dimension which is larger than a vertical dimension.

With respect to claims 5 and 8, three additional area of first core material within the first cladding are provided as shown in fig. 12, three additional area of second core material within the second cladding are provided as shown, and the first and second upper cladding surfaces are positioned against one another upon assembly of the first and second planar waveguides with the corresponding waveguide upper cladding surfaces facing one another.

With respect to claim 6, it is clear that the first waveguide upper cladding surface and the first structural upper cladding surface are non-coplanar.

Art Unit: 2874

With respect to claims 7-8, and 10-12, Bowers et al show in fig. 11 that the cross-section of the input and output side of the optical device has the first waveguide upper cladding surface and the first structural upper cladding surface are coplanar.

With respect to claims 13 and 14, Bowers et al show in fig. 12 that the air portion is big enough so that the lateral dimension of the air portion is bigger than the lateral portion of the waveguide core portion.

With respect to claim 26, Bower's et al show in fig. 12 the portion 110 between the upper and lower waveguide. It is clear that the material 110 is considered as an embedding material.

With respect to claim 17, the index contrast is about 0% [see claim 19 in Bowers et al's reference].

With respect to claims 18 and 21, Deri et al discloses every aspect of claimed invention except for the silicon material. It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify to include the silicon material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

With respect to claims 19, 22, 23 and 24, Bower's et al show in fig. 5 and 6 that the dimension of the core is in the claimed range.

Allowable Subject Matter

Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or suggest an optical device comprising all the specific components with the specific combination including embedding material filling a volume between the respective upper cladding surfaces and the volume disposed between the engaged pairs of flat structural upper cladding surfaces as set forth in claim 15; including a gap providing a flow channel for a liquid precursor for an embedding medium to flow into and fill a volume between the respective upper cladding surfaces as set forth in claim 16;.

Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2874

For all official patent application related correspondence for organizations reporting to the Commissioner of Patents:

- Correspondence that is transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Further references of interest are cited on Form PLO-892, which is attachment to this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen Kim whose telephone number is (571) 272-2349. The examiner can normally be reached on Monday through Thursday.

ELLEN E. KIM
PRIMARY EXAMINER

Ellen E. Kim

Primary Examiner

April 1, 2005/EK

